

## GASTRO-ENTEROSTOMY WITH BONE PLATES.

By KNUT HOEGH, M.D.,

OF MINNEAPOLIS.

THE following case may deserve to be put on record, as it shows the value of Senn's bone plates in gastro-enterostomy; my conviction is that they are the best means we as yet have for the performance of this operation, especially better than Murphy's button.

In a man of forty-three years, H. O. H., of Martell, Wis., there had been diagnosticated a malignant tumor of the stomach, the diagnosis resting upon grave digestive disturbances, including pain after eating, vomiting of undigested, foul-smelling food in large quantities, wherein numerous micro-organisms, including *sarcinae ventriculi*, and indicating dilatation of the stomach, and upon the presence of a swelling of progressive growth in the epigastrium, upon steadily increasing pallor and emaciation with loss of strength, and upon the absence of hydrochloric acid in the stomach contents after Ewald's test-breakfast, the contents neither turning congo-paper blue, nor giving the characteristic rose-color with Günzburg's test.

The diagnosis and bad prognosis being communicated to the patient in obedience to his expressed wish, he refused operative interference, and he was, after a few days' washing out of the stomach by means of siphonage, sent home, taking with him a stomach-tube, to continue the washings at home. In some way he broke his tube on his way home, and he returned in a week, when his stomach was found to contain between six and eight quarts of decomposing contents; when at home he had had no passage by the bowels, and his strength had declined to an alarming degree. It was evident that the tumor completely occluded the pyloric opening, and that life could not last many days under the present conditions.

Under these circumstances the patient elected to have gastro-enterostomy performed.

With the kind assistance of J. C. Stewart, M.D., the operation

was performed November 11, 1893, at St. Mary's Hospital in this city. Owing to the unexpected large size of the tumor, the stomach was much more displaced towards the left than was anticipated, which led to a false step being taken, the tumor being supposed to be the stomach and partly incised; this produced a troublesome hæmorrhage, which it took a very long time to stop. After this had been carefully done, the stomach was found, and the operation of uniting it with the upper part of the jejunum by means of large (three and a half inches) bone plates, with liberal openings, was easily and rapidly performed. The bone plates had been kept in moist condition to prevent their producing gangrene, by compressing the visceral walls from their swelling on imbibing fluid. The patient vomited some blood after the operation, but had no other unfavorable symptom, neither fever, abdominal pain, tympanites, nor obstruction. For the first few days he was sustained exclusively by nutrient enemata;<sup>1</sup> after three days he was given broths, peptonized milk, and corn-starch pudding. These articles of food being easily digested, the diet-list was gradually increased. The patient made an uninterrupted recovery, and went home in three weeks.

I received a letter from him dated January 11, 1894, in which he expressed his satisfaction with having undergone the operation; he can now eat and digest, suffers occasionally slightly from nausea, but is on the whole in a satisfactory condition.

The bone-plates were not vomited, nor found in the fæces, although carefully looked for.

I compare this case with two cases of enterostomy that I know of in my neighborhood, and within my circle of acquaintances, where Murphy's button was used. Both cases died, the one was well for some days, when sudden fatal peritonitis developed, the other died after about one day. The surgeon was a man of exceptional skill, so that, I presume, no technical fault was committed.

Three serious dangers have been indicated as connected with the use of Murphy's button, and I enumerate them in their supposed order of importance.

<sup>1</sup> The nutrient enema, which I have used in many cases with good result, consists of one ounce of glucose boiled with one drachm of flour, and five ounces of water; after this has cooled there is added a half ounce of claret and two eggs beaten up with a half ounce of water.

(1) The margins of the button are supposed to, and really do, produce pressure gangrene, thus opening a source of infection whose limits are unknown, and not within our control.

(2) A foreign body of the size of these buttons has repeatedly produced intestinal obstruction in cases that have come to my knowledge, notably a case of gall-stone.

(3) The plane of juxtaposition seems to be too small in extent to produce sufficient adhesions.

In favor of the button has been urged the rapidity of its insertion and its small size.

I believe that Senn's bone-plates can be placed with the same ease and rapidity ; that their size is of no importance, because they soon become softened and macerated ; that they produce sufficiently large surfaces of adhesion ; that they, properly prepared, —moist,—produce no gangrene.